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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686.205	10/15/2003	Nancy Cam Winget	72255/00008	5890

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EXAMINER
CHEN. SHIN HON

ART UNIT	PAPER NUMBER
2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/686,205	WINGET, NANCY CAM
	Examiner	Art Unit	
	Shin-Hon Chen	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 February 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>15 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>2/25/05</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-18 have been examined.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 16-18 discloses an article of manufacture embodied in a computer readable medium, wherein the computer readable medium includes carrier wave/pulse (Specification: page 6 line 15).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 11, 12, 15, 16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kotani et al. U.S. Pub. No. 20010009582 (hereinafter Kotani).

5.   As per claim 11, Kotani discloses a system for targeting multicast transmission, the system comprising: means for generating a group key for signing a multicast message transmitted via a network (Kotani: [0053]: group key is used); means for generating a group key

name for naming the group key (Kotani: [0054]: the common key is prepared in both sides; [0057]: identification code for the group keys); means for combining the group key name to the multicast message to form a multicast packet (Kotani: [0057]: identification code corresponds to group key is added to header); means for transmitting the multicast packet to a receiver via the network (Kotani: figure 4: transmission between two sides); means for receiving the multicast packet (Kotani: figure 4: data transmission system); means for validating the received group key name contained within the received multicast packet (Kotani: [0107]: validate the group key ID); and means for determining the intended group recipients based upon the validated group key name (Kotani: [0107] and [0109]: determine if the group IDs match).

6.   As per claim 12, Kotani discloses the system of claim 11. Kotani further discloses wherein the means for determining further includes means for comparing to a local group name table (Kotani: [0109] and figure 2).

7.   As per claim 15, Kotani discloses the system of claim 11. Kotani further discloses wherein the group key name is a unique identifying element (Kotani: [0087]: only the communication terminals of the same group can communicate).

8.   As per claim 16, Kotani discloses an article of manufacture embodied in a computer-readable medium for use in a processing system for transmitting electronic messages to and/or from a network, the article comprising: a group key generation logic for causing a processing system to generate a group key for encrypting and signing an electronic message transmitted on a

network (Kotani: [0053]: group key is used); a group key name generation logic for causing a

processing system to generate a group key name for encrypting and signing the electronic

message transmitted on the network (Kotani: [0054]: the common key is prepared in both sides;

[0057]: identification code for the group keys); a data transmitting logic for causing a processing

system to transmit the electronic message to a group of clients on the network (Kotani: figure 4

and [0087]: transmission between two sides); and a message receiving logic for causing a

processing system to verify whether a receiving client is an intended recipient of the electronic

message (Kotani: [0107] and [0109]: validate the group key ID).

9.   As per claim 18, Kotani discloses the article of claim 16. Kotani further discloses wherein

the message receiving logic further includes means for causing a processing system to compare a

received group key name with a local key name table (Kotani: [0109] and figure 2).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

11.   Claims 13, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kotani.

12.   As per claim 13, 14, and 17, Kotani as modified discloses the system of claims 11 and 16.

Kotani as modified further discloses wherein the step of transmitting includes transmitting any

suitable communication network includes but not limited to wireless network (Kotani: [0046]:

applies to any communication network including wireless network). It would have been obvious

to use 802.11 communication protocol because 802.11 is standard protocol for wireless network.

Therefore, it would have been obvious to one having ordinary skill in the art to use 802.11

protocol because standards are extremely important in the computer industry because they allow

the combination of products from different manufacturers to create a customized system.

13.   Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kotani in view of Aerrabotu et al. U.S. Pub. No. 20040203598 (hereinafter Aerrabotu).

14.   As per claim 1, Kotani discloses a method for validating an electronic transmission, the

method comprising the steps of: generating a group key for encrypting and signing an electronic

message transmitted on a network (Kotani: [0053]: group key is used); establishing a group key

name corresponding to the group key for encrypting and signing the electronic message

transmitted to a group of clients on the network (Kotani: [0054]: the common key is prepared in

both sides); transmitting a data packet, the data packet including the group key name (Kotani:

[0057]: the identification code corresponds to group key is added to the header), the electronic

message and group key name (Kotani: [0054]: the common key is prepared in both sides; [0057]:

identification code for the group keys); receiving the data packet; and validating the group key

name in the received data packet (Kotani: [0104]: validate group ID). Kotani does not explicitly

disclose the data packet includes signature to authenticate the electronic message. However, Aerrabotu discloses transmitting a message from server to client that includes signature in the header portion to validate the trustworthiness of transmitting side (Aerrabotu: [0027]: the header includes signature data field). It would have been obvious to one having ordinary skill in the art to include signature in the header portion of a data packet because both prior art discloses method of communicating data that contains message and header in distributed network environment. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Aerrabotu within the system of Kotani because embedding signature within the header portion of a message allows a device to validate source of the message (Aerrabotu: [0027]).

15.   As per claim 2, Kotani as modified discloses the method of claim 1. Kotani further discloses the method comprises the step of adding the group key name and the message authentication signature to a packet name extension prior to the step of transmitting (Kotani: [0057]: identification code correspond to group key is added to the header; Aerrabotu: [0027]: signature is embedded in the header). Same rationale applies here as above in rejecting claim 1.

16.   As per claim 3, Kotani as modified discloses the method of claims 1. Kotani as modified further discloses wherein the step of transmitting includes transmitting any suitable communication network includes but not limited to wireless network in accordance with 802.11 protocol (Kotani: [0046]: applies to any communication network). It would have been obvious to use 802.11 communication protocol because 802.11 is standard protocol for wireless network.

Therefore, it would have been obvious to one having ordinary skill in the art to use 802.11

protocol because standards are extremely important in the computer industry because they allow

the combination of products from different manufacturers to create a customized system.

17.   As per claim 4, Kotani as modified discloses the method of claim 1. Kotani as modified

further discloses the method comprises the step of establishing an authenticated relationship

(Kotani: [0116]: common key is prepared in both the transmission side and reception side).

18.   As per claim 6, Kotani as modified discloses the method of claim 1. Kotani as modified

further discloses the step of validating further includes the step of comparing the received group

key name to a group key name table (Kotani: [0106]: select the group key by the ID; figure 2:

key portion).

19.   As per claim 7, Kotani as modified discloses the method of claim 6. Kotani as modified

further discloses the steps of: establishing a local group key name; and storing the locally

established group key name in the group key name table (Kotani: [0018] and [0106] and figure 2:

plurality of keys were stored locally that corresponds to identification codes).

20.   As per claim 8, Kotani as modified discloses the method of claim 1. Kotani further

discloses the step of encrypting the multicast message prior to transmission (Kotani: [0057]: the

body is encrypted and decrypted by group key).

21.   As per claim 9, Kotani as modified discloses the method of claim 1. Kotani as modified further discloses the step of decrypting the received multicast message if the received group key name matches an entry in the group key name table (Kotani: [0106]: select the group key according to the group ID).

22.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotani in view of Aerrabotu and further in view of Kang et al. U.S. Pub. No. 20040073796 (hereinafter Kang).

23.   As per claim 5, Kotani as modified discloses the method of claim 4. Kotani as modified does not explicitly discloses wherein the step of establishing an authenticated relationship employs a handshake protocol. However, Kang discloses the handshake protocol for establishing user authentication and exchange of keys (Kang: [0007]). It would have been obvious to one having ordinary skill in the art to apply the handshake protocol to establish keys in both the transmission side and receiving side (Kotani: [0054]: keys are prepared for both sides) because handshake protocol is well known for key exchange in communication networks. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Kang within the combination of Kotani-Aerrabotu because handshake protocol defines a state machine about wireless LAN user authentication and exchange of an encryption key to be used in a wireless network (Kang: [0007]).

24.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotani in view of

Aerrabotu and further in view of Edasawa et al. U.S. Pub. No. 20030005293 (hereinafter

Edasawa).

25.   As per claim 10, Kotani as modified discloses the method of claim 1. Kotani as modified

does not explicitly disclose the step of discarding the received multicast message if the received

group key name does not match an entry in the group key name table. However, Edasawa

discloses discarding message if group ID does not match (Edasawa: [0297]: discard message if

group ID do not match). It would have been obvious to one having ordinary skill in the art to

discard received message if the group ID do not match because both the messages are directed

toward multicast using group keys. Therefore, it would have been obvious to one having

ordinary skill in the art at the time of applicant's invention to combine the teachings of Edsawa

within the combination of Kotani-Aerrabotu because it avoids redundant processing of

unintended message.

Conclusion

26.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

        Irvin U.S. Pat. No. 6832314 (hereinafter Irvin) discloses method for selective encryption

and decryption of point to multi-point messages.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Shin-Hon Chen whose telephone number is (571) 272-3789. The

examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.
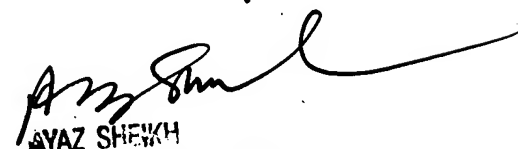
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shin-Hon Chen
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